Polyvinylidenechloride. IV

AUTHOR(S):

Kunichika, Sango; Ota, Hirooki; Morimura, Shoji

CITATION:

Kunichika, Sango ...[et al]. Polyvinylidenechloride. IV. 京都大学化学研究所報告 1951, 26: 91-91

ISSUE DATE:

1951-12-10

URL:

http://hdl.handle.net/2433/74309

29. Polyvinylidenechloride. IV

Sango Kunichika, Hirooki Ota and *Shoji Morimura*

(Nozu Laboratory)

The copolymerization of vinylidenechloride with vinylacetate or vinylcyanide under various conditions was studied.

Results obtained:

1). Copolymer of vinylidenechloride and vinylacetate.

Block polymerization;
Catalyst: Benzoylperoxide, 0.1 g.
Temperature: 50°,
Duration: 10 hrs.

Vdene Cl. (g)	V. Ac. (g)	Yield (%)
10.0	—	68
9.9	0.1	64
9.5	0.5	62
9.0	1.0	41
8.5	1.5	29
8.0	2.0	22
7.0	3.0	13
6.0	4.0	9
5.5	4.5	6

Emulsion polymerization;
Emulsifier; "Monogen" 0.2 g. Water; 40 cc. Catalyst; Potassium persulfate and Hydrogene peroxide, 0.2 g. Temp. 30°. Duration; 10 hrs.

Vdene Cl. (g)	V. Ac. (g)	Y. (%)
10.0	—	99
9.9	0.1	93
9.5	0.5	86
9.0	1.0	80
8.5	1.5	68
8.0	2.0	67
7.0	3.0	51
6.0	4.0	71

2). Copolymer of vinylidenechloride and vinylcyanide.

Block polymerization;
Conditions were same as above.

Vdene Cl.	V. Cy.	Yield
9.7	0.3	23
9.5	0.5	17
9.0	1.0	5
8.0	2.0	3
7.0	3.0	1
6.0	4.0	—

Emulsion polymerization;
Conditions were same as above.

Vdene Cl.	V. Cy.	Yield
9.9	0.1	94
9.5	0.5	81
9.0	1.0	61
8.5	1.5	75
8.0	2.0	76
7.5	2.5	80
—	2.2	92

The thermal decomposition curves of the polymer of vinylidenechloride and its copolymers with vinylacetate or vinylcyanide were observed by means of thermobalance, and consequently it was found that the copolymers began to decompose at a temperature about 15-20° lower than polyvinylidenechloride which decomposed at 200°.